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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/533,467	03/23/2000	Jerry D. Burchfiel	99-442	9907

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VERIZON CORPORATE SERVICES GROUP INC.
C/O CHRISTIAN R. ANDERSON
600 HIDDEN RIDGE DRIVE
MAILCODE HQEO3HO1
IRVING, TX 75038

EXAMINER

EMDADI, MEHDI

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 11/19/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/533,467

Applicant(s)

BURCHFIEL ET AL.

Examiner

Mehdi Emdadi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3-23-2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 243.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Detailed Action

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:
[Reference number "16" mentioned in line 14 of page 13 is not found in Fig. 5]. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim1 is objected to because of the following informalities: "the second router...second router" (line 10) should be deleted to avoid unnecessary repetition. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).
5. Claims 1-4, 7-14, 17, and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by LeDuc et al. (US Patent No. 6,484,202 B1).
6. Regarding Claims 1 and 2, LeDuc teaches: (Referring to Fig. 1) "Processor 116 calculates the status of transmission link 108 based on the first status of first port 105 and the second status of second port 107. Memory 114 is effective in storing the status of transmission link 108." (Col. 2, lines 59-65) (*An apparatus for detecting ..., comprising a memory for storing status database; and a processor which receives a first signal corresponding to a first router...*), "The management device uses these status values to calculate the status of the transmission link between the first port and the second port." (Col. 4, lines 56-58) (*compares the received first signal ... with a second ...*), "An alarm can be sent when the status is calculated to be a predetermined value, such as an out-of-service alarm." (Col. 2, lines 21-23) (*issues an alarm signal ...contain non-complementary router status.*), Still further, the status can be stored at the management device.

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7. Regarding Claim 23, please refer to response to claim 1, above. Moreover, LeDuc discloses: "This stored status can then be used for comparison, calculations, or display at a later time." (Col. 4, lines 41-44) (*means for storing a router status database; and means for (i) receiving a first signal ...*)
8. Regarding claims 3 and 13, these limitations are inherent because in any processing environment a stabilization time is required for real time events to ensure that the reported situations are not sporadic and to ensure that network delays have not skewed the reports.
9. Regarding claims 4, 8, and 14, LeDuc teaches: "Fig. 3 depicts a flowchart 300 for calculating the status of a transmission link ..." (col. 3, lines 57-58) – Fig. 3 clearly describes the derivation of link status based on the first status and the second status received from the end devices. (*the processor performs the signal comparison...if both the first and second signals indicate the link between ... is operational*)
10. Regarding claim 9, LeDuc teaches: In Fig. 1, control lines from the first device and the second device bring information to the computer and the computer transmits alarm signals to output devices. "For example, if the status is determined to be out-of-service, an alarm can be sent to an operator to alert the operator of the out-of-service state." (*a receiver for receiving the router update..., and a trasnsmitter for transmitting the alarm signal.*)

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11. Regarding claims 7 and 10, please refer to responses to claim 1 and claim 9. (*from another router and characterizing the link between the router and the compromised router...*)

12. Regarding claims 11 and 12, please refer to responses to claim 1 and claim 2.

13. Regarding claims 17 and 20, please refer to response to claim 1 above. Moreover, LeDuc teaches: "Still further, the status can be stored at the management device or in memory coupled to the management device. This stored status can then be used for comparisons, calculations, or display at a later time." (Col. 4, lines 42-44) (*storing a router database ...comparing the received signal with the entry stored in the router database...*)

14. Regarding claims 21 and 22, please refer to response to claim 1 above. Moreover, Fig. 1 in LeDuc depicts the processor and memory components that perform functions such as comparison of status information received from devices at the two ends of a link. (*A storage medium containing computer readable code... one or more router processors to perform...*)

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

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art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 5, 6, 15, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeDuc as applied to claim 1 above, and further in view of Sundaram et al. (US Patent No.: 6,564,341 B1)
17. Regarding claims 5 and 15, LeDuc does not detail processor actions. However, Sundaram et al., which details some of the conventional fault monitoring schemes, describes the interactions between two devices as shown in Fig. 11. "Meanwhile, the NMS 12 monitors the time-out clock and waits for receipt of a response to the recovery poll request. If a response notification is received prior to expiry of the time-out period, ..." (col. 18, lines 10-14) (*waits a predetermined period of time, receives renewed first and second signals...*), "the NMS extracts the TxNSN of the received notification and compares it with TxNSNs of the previously received notifications ..." (col. 17, 53-55) (*re-performs the signal comparison ...*). In a networking situation when failure reporting and monitoring functions are considered, it would have been obvious to a person with ordinary skills to ensure fault conditions persist by waiting, receiving new fault reports, and comparing those with previously received information.
18. Regarding claims 6 and 16, LeDuc does not detail processor actions. However, Sundaram et al., which details some of the conventional fault monitoring and reporting functions, describes sending alarm notifications between two network

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elements: "Fig. 7 schematically illustrates EMS and NSM behaviour following detection of an alarm event. In accordance with an embodiment of the present invention, the following steps are performed: The EMS agent 6 formulates and send the Notification with all relevant fields." (col. 16, lines 11-16) (*wherein the processor issues the alarm signal in a third router status... to at least the second router*). In a networking situation when failure reporting functions are managed, it would have been obvious to a person with ordinary skills to send alarm signals in a message to a number of local and end devices, including routers and network management devices.

19. Regarding Claim 18, LeDuc does not detail processor actions. However, Sundaram et al., which details some of the conventional status updating mechanisms describes: "The NMS 12 can issue a series of polling requests to the active alarm table 26, in order to retrieve outstanding alarm data from any NE 4 in the EMS domain 8. When an alarm condition is cleared, the corresponding entry is removed from the table 26 and an entry is added when a new alarm is raised. The EMS agent 6 operates to ensure that table 26 is accurate and up-to-date after EMS agent 6 restarts, and the index values need not be preserved over restarts. However, it is preferable to provide the same notification IDs for all outstanding alarms after restarts." (col. 14, lines 55-65) (*processor issues a router update*). In a networking situation when status updating functions are undertaken, it would have been obvious to a person with ordinary skills to issue updates if the database entry contained complementary link status information.

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20. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over LeDuc as applied to claim 17 above, and further in view of Kight et al. (US Patent No.: 5,623,357)

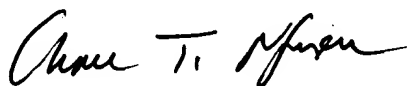
21. Regarding Claim 19, LeDuc does not describe an alarm broadcast function. However, Kight et al. teaches: "If user programmed thresholds are violated, then the task broadcasts an alarm message." (Col. 11, lines 21-22) (*broadcasting the alarm signal*). In routing and networking situations broadcast functions are common, therefore it would have been obvious to a person with ordinary skills to issue alarm broadcasts for failed links.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehdi Emdadi whose telephone number is (703) 305-8709. The examiner can normally be reached between the hours of 8am and 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen, can be reached at (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

M. Emdadi

11/12/2003



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600